A tale of two faculties: Exploring student experiences of e-portfolio implementation as a vehicle of reflective learning at Stellenbosch University

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ABSTRACT

This paper explores two cases within the Faculty of Education and Faculty of Economic and Management Sciences at Stellenbosch University with the aim of highlighting the opportunities and challenges associated with e-portfolio implementation. The two cases represent a pilot group of postgraduate education students and a first-year industrial psychology student cohort. While differing in the selection of platform and training and support provided, in both cases e-portfolios were implemented to enhance student reflective practices and an application of knowledge and skills. By adopting a qualitative approach, data were collected by means of two focus group interviews with students in the Faculty of Education and open- ended questions with students in the Faculty of Economic and Management Sciences. The findings suggest that the choice of platform, the establishment of an online community of practice and the derived value students place on the use of e-portfolios should be considered during e-portfolio implementation. Despite the value in demonstrating learning and to showcase achievements and skills development, it is clear that role players should pay attention and develop a deeper understanding to underlying aspects within the South African context that contribute to the successful implementation of such initiatives.

Keywords: e-portfolios, reflective learning, digital literacy, implementation, community of practice

INTRODUCTION

Higher education interest in the utilisation of e-portfolios as learning tools has increased in recent years (Yusuf & Tuisawau, 2011) by, for instance, adopting these to contribute to the enhancement of an authentic learning experience (Herrington, Reeves & Oliver, 2010), to assist in personal and continuous professional development (Von Konsky & Oliver, 2012) and in the development of graduate attributes whereby students demonstrate attributes associated with 21st century learning (Housego & Parker, 2009).

Although numerous definitions of e-portfolios exist, it seems as if an explanation usually includes reference to a collection of digital artefacts, evidence of learning progress and achievements inclusive of formal and informal learning opportunities. This collection could be used for reflection, assessment, showcasing achievements and standards achieved or as a demonstration of continuous development. The e-portfolio is managed and owned by the student whereby they normally have the right to invite other interested parties such as awarding bodies, lecturers and peers to access such a portfolio for particular purposes (Barrett, 2012; Beetham, 2005). Mapped against above-mentioned characteristics, e-portfolios are usually related to an authentic learning experience whereby information-driven practices are replaced with

approaches whereby students are actively and authentically involved in the learning process. In order for a task to be authentic of nature, it is expected of students to be actively involved in an innovative and realistic task that paves the way for active engagement and multifaceted collaborative opportunities (Herrington, Reeves, & Oliver, 2010). In terms of educational approaches, it is therefore clear that e-portfolios could be used for either learning (i.e. for developmental or reflection purposes) or assessment purposes (i.e. showcasing standards achieved).

Although personal development planning, employability, and lifelong and life-wide learning agendas contributed to the escalation of the international use of e-portfolios (Joyes & Smallwood, 2012; Jenkins, Mash & Derese, 2013), uptake in higher education institutions in South Africa seems patchy. For instance, recent research into e-portfolio practices in the Western Cape highlight, but are not limited to, e-portfolio initiatives in Economic and Management Sciences, Education, Health, Architecture, Art and work-integrated learning (Koch, 2010; Pallitt, Strydom & Ivala, 2015). Within health education, colleges of medicine in South Africa formally implemented the use of learning portfolios as a requirement for all postgraduate training in family medicine in South Africa (Jenkins et al., 2013). In some cases, emphasis was placed on the nature and process of collaboration and engagement during the utilisation of e-portfolios. For instance, Edwards (2016) reported on the process by which students managed collaboration in a Design and Technology project where it is suggested that groups of students manage their respective collaborative approaches differently despite some commonalities. As expected, inter-relationships between group members as well as value placed on the importance of each group contributed to the quality and level of engagement within these groups. Within the context of distance education, this notion was further explored where it was suggested that students create their own communities of practice during their engagement with e-portfolios in order to assist each other and learn from each other (Van Staden, 2016).

Despite these pockets of good practice, it seems as if the South African higher educational context is mainly in the exploration phase of the use of e-portfolios as a possible learning and/or assessment approach in selected programmes.

The purpose of the study on which this paper is based is to explore the approaches towards implementation and learner experiences related to two pilot e-portfolio initiatives in the faculties of Education and Economic and Management Sciences. Although these initiatives are different in purpose, common features exist in terms of student preparation, support and feedback. Due to the increase in learner access to a variety of devices and the common use of a learning management system (LMS) in higher education programmes (Von Konsky & Oliver, 2012), it is argued that especially in the South African context, lessons learnt from these two pilot initiatives could contribute to the consideration, deeper understanding and sensible implementation of an alternative learning approach to formal and informal learning experiences in a variety of programmes.

Whilst the introduction provides a general overview of the use of e-portfolios in higher education, it remains imperative to highlight those key aspects associated with e-portfolio use. The next section highlights the developmental process, role of reflection, collaboration and feedback. This is followed by the methodology and an outline of the two cases. The paper closes with the results, discussion and recommendations and concluding remarks.

KEY ASPECTS RELATED TO E-PORTFOLIO USE

Development of an e-portfolio

The e-portfolio development process consists of purpose, content and process whereby students provide evidence of learning interaction through the selection of artefacts and consequent reflections on the choice and reason for inclusion into the portfolio. Also important is the approach the student uses in the format of the portfolio, the choice of sequencing activities and resources, the specific guidelines provided and applied by the educational institution, the assessment rubric, and the collaborative aspects, which include peer conversations and subsequent editing and reworking of the portfolio (Barrett, 2005; Jimoyiannis, 2012). Overall, all of abovementioned practices create the opportunity for students to synthesise learning experiences when developing the portfolio, to develop meta-cognitive and self-evaluative skills by means of critical reflection, to enhance the level of communication and discourse through presenting and sharing and to respond to different levels of feedback (Barbera, 2009; Buzzetto-More, 2010).

Reflection

The notion of reflection and its associated educational value is well documented and is viewed concomitantly with learning (Ng'ambi, 2008) whereby the practice of reflection provides the foundation for the development of further growth and knowledge. As an approach to learning, the creation of an e-portfolio could be rooted in the notion of constructive alignment (Biggs, 2003) due to the importance of the body of content (selection of artefacts and subsequent reflections) which should be closely aligned with the intended learning outcomes and assessments (where appropriate). Students are then provided with the opportunity to self-assess how they are meeting the outcomes or particular standards by means of constructive feedback from both peers and lecturers (Jimoyiannis, 2012). Framed within the social- constructivist approach which makes the case for learning where the students are actively engaged in discovering new knowledge and forming opinions, the emphasis remains on reflective practices and collaboration with peers in the e-portfolio development process (Buzzetto-More, 2010; Barbera, 2009). Reflection therefore supplements the process and product, and provides students with the opportunity to construct meaning in a social context based on particular experiences (Buzzetto-More, 2010; Jimoyiannis, 2012). These higher-order skills are developed through continuous cognitive attempts to re-evaluate and reflect on choices and associated content (Barbera, 2009). Jimoyiannis (2012: 111) argues that 'reflection is a way of thinking about learning and helping individual students to understand what, how

and why they learn. It is a form of mental processing, a form of thinking, that people use to fulfil a purpose or to achieve an anticipated outcome'. Quality reflections are characterised by the support of appropriate evidence to back particular assumptions but they also provide the opportunity for students to consider alternatives to their claims and critically question their assumptions (Pitts & Ruggirello, 2012).

This approach to reflection could be prospective (for planning) or retrospective (for review and analysis) (Barrett, 2011). For instance, a prospective reflective approach could include the decision on choice of artefacts for inclusion, or planning the layout of the portfolio for a particular audience or outcome and so forth. Reacting on the feedback from peers and lecturers in terms of artefact selection and sharing of the learning experience could be retrospective by nature. Critics of reflective practices argue that student reflections often have the potential to be unstructured, demonstrate a lack of academic conscientiousness and are reminiscent of 'journal-like' summaries of informal thoughts about certain learning experiences (Carl & Strydom 2017; Pitts & Ruggirello, 2012). It is evident that students need targeted support in reflection writing and also developmental strategies during the learning process due to the particular emphasis placed on either showcasing (product) or learning development (process).

Collaboration and feedback

In addition to the importance of reflection in e-portfolio development, collaboration and feedback remain central to the learning process. Not only does this reflective process contribute to new knowledge structures, but the interaction and communication between learner, peers and lecturers also provide opportunity for new knowledge structures within a particular social context (Barbera, 2009). Collaborating in these 'online communities of practice' provides students with an authentic experience related to the selection and discussion of appropriate artefacts, but also real-time feedback and contributions from all relevant role players that contribute to the opportunity to connect, clarify and communicate as and where needed (Jimoyiannis, 2012). In essence, at a conceptual level, e-portfolios could be viewed as multimedia virtual environments where students are given the opportunity to demonstrate their learning and participate in the discourse relating to learning experiences within an online community of practice (Buzzetto-More, 2010; Pitts & Ruggirello, 2012). Within such a community, there is the potential to develop a network of evidence to demonstrate learning and growth by means of the conceptualisation of future actions based on feedback and community interaction. In a sense, past, present and future actions become interconnected through the utilisation of the discursive and social spaces (Pitts & Ruggirello, 2012).

METHODOLOGY

The paper reports on the opportunities and challenges of two separate initiatives which took place in the Faculty of Education and the Faculty of Economic and Management Sciences, where e-portfolios were implemented as vehicles for reflective learning. A qualitative approach was employed in order to make meaning and attempting to understand the lived worlds of

students within the two respective projects (Elliot & Timulak, 2005; Silverman, 2005) whereby an 'insider perspective' was deemed important to explore fully and understand these experiences (Babbie & Mouton, 2012).

In terms of sampling, 11 self-selected students from the Post-Graduate Diploma in Education (PGCE) programme of the Faculty of Education voluntarily participated in the pilot project while opportunity sampling was employed for 300 first-year students in Industrial Psychology (Career Psychology Module) in the Faculty of Economic and Management Sciences participating in a compulsory e-portfolio initiative. In terms of gender both were represented approximately equally while the age of the majority of participants was between 20-25 years. Ethical guidelines were followed and students provided consent for their involvement in the study and had the right to withdraw at any stage of the investigation. The PGCE students were invited to participate in the pilot project in order to investigate the use of e-portfolios as a vehicle for reflective practice during school visits (Carl & Strydom, 2017) while the Industrial Psychology students used e-portfolios as part of their first-year course in their career psychology module.

Data were gathered by means of two focus group interviews for the education students while questionnaires consisting of open-ended questions provided the data for the Industrial Psychology students. An inductive analysis approach was adopted whereby data were analysed via axial coding (Strauss & Corbin, 1990). Connections between different categories that emerged from the coding process resulted in the identification of main themes and sub-themes. The details of the two initiatives are outlined below.

DESCRIPTION OF TWO EXAMPLES
Example 1: Faculty of Education
Context

Within the PGCE programme in the Faculty of Education, it is expected of pre-service teachers to complete a term's in-service training in an allocated school in order to prepare them for the work demands within a school context. It is required of such students to reflect regularly on their experiences in schools, to participate in school-related co-curricular activities and to teach a minimum number of lessons that are observed by a teacher and/or a lecturer from the faculty. Such reflections and associated evidence are normally paper-based and handed in as a folder of evidence at the end of the school practicum.

A number of variables contributed to the consideration of exploring the affordances of an e-portfolio in this particular course: administratively, it is a challenge to manage high numbers of student reflection folders, students do not have access to each other's folders for formative feedback, lecturers cannot be actively involved during the school practicum period and can therefore not provide students with just-in-time feedback on opportunities and challenges arising from in-service training. In addition, due to the emphasis placed on the development of graduate attributes in the faculty,[2] such an approach could also

contribute to the further development of such attributes and associated lifelong learning skills.

Mapped against and funded by a broader institutional teaching development grant project, students were provided with a tablet and data bundles to be able to develop their portfolios during their normal school day. Apart from the weekly reflections, students were encouraged to collect artefacts during curricular and extra-curricular activities.

Implementation

It was decided to make use of Web 2.0 technologies in selecting an e-portfolio platform and therefore students attended an induction session on how to create a blog before their practicum period. Time was also spent on introducing students to the main principles of reflective practice and how to be a critical friend when commenting on each other's blogs. It was expected of students to invite peers in the pilot group as well as three facilitators to their respective blogs and to post a weekly reflection on their blog. All invitees were requested to comment on their blogs.

In terms of the platforms and tools used for this particular project, the Google suite was deemed suitable. Blogger was used for the creation of the blog, Google drive to store artefacts, Google+ to share resources and communicate with students, and Google hangouts for two formal online discussion sessions.

Example 2: Economic and Management Sciences

Context

Three hundred first-year students were enrolled in the Career Psychology module in Industrial Psychology. In order to avoid mere memorisation of facts, lecturers sought to engage students at a more meaningful level to encourage deeper learning. In using the e-portfolios as a learning approach to critical engagement, students were encouraged to reflect actively on the module content, engage in critical thinking as well as in the application of theory. Student reflections were guided by questions posed by the lecturers. These questions were based on the module content discussed during the lesson. The students were encouraged to integrate references to personal strengths and weaknesses, abilities, skills and the influence of personal experiences in their reflective pieces.

Students made use of Mahara, an e-portfolio platform integrated with the institutional LMS. An institutionally owned platform was chosen since it eliminated potential administrative issues that could have proved challenging in a large class scenario. The e-portfolio project served as a formative assessment opportunity and therefore it was compulsory for the whole cohort to participate.

Implementation

Students received a short training session during class on how to create e-portfolio

reflections. The purpose of the use of the e-portfolio was also explained to them. Since this was the first year e-portfolios were being utilised, the lecturer did not want peers to view each other's portfolios since some entries contained reflections of a personal nature. Honours students acted as assessors. They made use of a rubric to assess student e-portfolios and provided them with feedback on their reflections. The lecturer and faculty blended learning coordinator provided the students with technical and reflection-based support. It quickly became apparent that even an institutional platform has challenges. The most common support issues were related to the sharing of e-portfolio entries with assessors.

Based on these two initiatives, the common themes emerging from the data and feedback are discussed in more depth.

RESULTS

The main themes and sub-themes that emerged from the data are reflected in Table 1.

Table 1:
Main themes and sub-themes related to student experiences of e-portfolio implementation

Main theme	Sub-theme
Platform choice	Student-centred learning Digital literacy skills
Online community of practice	Reflections and social learning Role of other key role players
Value of e-portfolios for learning	Authentic learning

Theme 1: Platform choice

The first theme highlights the importance of choice of platform for such an e-portfolio based intervention. It was clear that role players had to consider a platform central to meeting student needs in terms of support and access to knowledge. A second sub-theme related to the choice of platform speaks to the level of digital literacy of students and how this should be taken into consideration by not making assumptions of technological skills of students during e-portfolio implementation.

Sub-theme: Student-centred learning

Numerous factors contribute to the choice of platform in developing an e-portfolio. In this particular instance, both the size of the participatory group and the level of technical support available during the intervention guided the particular decision. A larger group, such as the

Industrial Psychology students, presented unique challenges regarding support; therefore, it made operational sense to make use of a platform linked to the institution's LMS (Moodle). Through Mahara, support was ensured from not only the lecturer but also the official LMS support team. The Faculty of Education opted for a Web 2.0 platform and engaged various Google Tools (Blogger, Drive, Hangouts, Google+). The case was made that PGCE students would be entering the world of work the following year and therefore should have immediate access to their portfolios as continuous professional development tools:

> SUNLearn [Moodle] is a portal for us, as students, to obtain course information, and not a social sphere … (Industrial Psychology student).

> So I'd like to do it for my first or maybe first two years as a new teacher at a school and see how that goes and I'd maybe even give my students access to it, so they can read it as well and even comment on it and make their own blogs ... (Education student).

In this particular study, the choice of platform was mainly motivated by the size of the group as well as additional support offered, but choosing the appropriate platform does require that lecturers also need to develop a working understanding of e-portfolios (technical and pedagogical) in order to comprehend fully the potential of such an approach as experienced by students. This includes the ability to appreciate the learning experiences of students which could ultimately contribute to the authenticity of such an intervention (Challis, 2005).

Sub-theme: *Digital Literacy*

There are numerous definitions of digital literacy which mainly relate to the ability of users to use digital devices effectively in different domains (e.g. cognitive, social-emotional and technical) within formal and informal learning contexts (Beetham, 2005; Ng, 2012). For instance, the cognitive domain requires users to have a working knowledge and understanding of information practices associated with the internet; the social-emotional makes reference to social attributes and skills associated with online behaviour and the technical domain highlights the ability to demonstrate a working knowledge regarding functions and technical aspects of devices (Ng, 2013). However, despite engaging with so-called 'millennials', it was clear that the assumption could not be made that all the students were comfortable with the required technologies and that they knew how to utilise them as expected. In terms of digital literacy, students did not experience the training provided as sufficient. Although only 4% of the Industrial Psychology students stated that they saw their own computer skills as poor, most of the cohort asked for a more hands-on training experience related to multimedia skills (e.g. adding images, videos and sound clips) and granting access to their respective portfolios at the start of the project:

> A compulsory tutorial class should be organised in the beginning of the module where tudents are shown how to create interesting posts on the e-portfolio. The range of

abilities of the e-portfolio must be made clear to the students (Industrial Psychology student).

Initially I struggled to reach my assessor and to share my page with her. Assessors need to be more accessible … (Industrial Psychology student).

Similarly, some of the education students commented on the difficulties they experienced in terms of sharing their blogs, using Google Hangouts and uploading of certain artefacts:

I struggled a lot … I'm quite technologically advanced and then one night I just had this experience where I felt that I wanted to say something on my blog. So then I recorded a video … I just couldn't upload it … I just couldn't figure it out (Education student).

Theme 2: Online community of practice

A second theme emerging speaks to the value and challenges of online interaction between the different role players. Whilst the notion of an online community of practice and its associated benefits were confirmed in the study, it was clear that students still needed guidance in terms of what exactly reflection entails and how to comment on peers' contributions. Of note is also the fact that in both cases students preferred regular feedback from facilitators as well.

Sub-theme: Reflections and social learning

Having access to peers' e-portfolio entries provided the education students with a network and community of practice with which they could share their experiences. However, such an online community could only evolve through training and scaffolding in order to guide students in the associated and required practices of an online community. This approach increased the breadth and depth of their social interaction in the learning process. Of interest, however, was the fact that a number of students suggested that they felt uncomfortable commenting on posts of peers for fear of offending them or not knowing what the appropriate response should be.

Yes, I think it would have been nice if we had a session after the first three weeks as well … to recap on what it means to be a critical friend … I know my blog was very based on emotion … whereas hers might be more clinical, you know, facts, what happened that day, how she experienced it. It's not always easy, but it would have been nice to have another session to just remind us about what the goal is eventually (Education student).

… and then also I feel like how do you really comment on someone's personal experience? Like if you say you've had a bad day, it's hard to say well, maybe if you did this and this and this and this and this, you will have a better day. You just want to be like okay, she's

reflecting … (Education student).

The Industrial Psychology students did not have access to their peers' e-portfolios, but in the project evaluation questionnaires a large number of students suggested that access to their peers' e-portfolio entries would be valuable. The questions supplied to students guided them in their reflective practices, but they often regarded this as 'answering a question' as opposed to developing true reflective practices. Many students also preferred more engaged comments from their assessors and emphasised the need to collaborate and communicate with peers virtually to improve their reflections.

I expected the assessors to give me guidance and be more interactive … (Industrial Psychology

student).

The reflections were also a good point of discussion between classmates as we did bounce off ideas from one another. This improved learning and interest through peer-to-peer interaction… (Industrial Psychology student).

Sub-theme: *Role of other key role players*
The value of feedback resonated not only with peers, but also with lecturers and facilitators involved in the project. In this particular case, students indicated that they needed more regular and detailed feedback from facilitators. Interestingly, this was not necessarily due to a need to improve and respond to suggestions, but often also an affirmation that reflective posts are 'correct' and aligned with the particular assignment. Those students who received feedback from facilitators appreciated it and integrated suggestions into their daily practice but without editing their original post. Despite some challenges associated with the reflective process, students overwhelmingly supported it as integral to the developmental process.

… but maybe a little bit more feedback would have been helpful because I didn't get any comments for like the first three weeks, I don't think and by then I had already written so much and I was like I'm assuming what I'm doing is right and no-one has told me it's wrong … (Education student).

I really liked the comments. I really liked the questions that you asked but more of that would also be great. I think because then you just, like it lets you also know, I'm not just typing this for nothing. There is someone out there reading it … (Education student).

The Industrial Psychology student number was much larger and therefore the lecturer needed help with assessing the entries. Honours students acted as assessors to assist with the marking.

The assessor didn't always give me enough feedback. He just gave a mark. I wanted more

constructive feedback so that I know how and what to improve ... (Industrial Psychology student).

Theme 3: Value of e-portfolios for learning

A final theme that emerged in both cases was the value students placed on the authentic nature of the projects by applying new knowledge and skills not only to academic content, but also work-related skills and attributes.

Sub-theme: Authentic learning

In terms of the application of knowledge when being exposed to an authentic learning experience, the initiatives were deemed useful in both cases. It was suggested that reflective entries enhanced the understanding of the module content, helped to improve writing and comprehension skills and provided the opportunity to enhance personal development. The nature of the module content (Industrial Psychology) also prompted students to reflect on their career path and future:

> … not only have these reflections been helpful in learning the course material, but have been a life- changing tool allowing me to explore my skills and abilities … (Industrial Psychology student).

> The reflections have taught me how to apply the work I have learnt in the week in everyday situations. I often find myself sitting in a lecture wondering to myself, 'Where will I ever use this? and by doing these reflections I have managed to apply the knowledge to practical situations (Industrial Psychology student).

For the Education students, the opportunity to reflect during work experience contributed to a deeper level of understanding of the world of work and approaches that were more useful within a particular teaching context:

> I could see where I started at school – like my first week and how I evolved as a person and in my teaching and what the teachers taught me there. And I'm like interested in what they're teaching. So, it was seeing what methods they use and everything. So it made me see the process how I grew. That was good about doing weekly reflections (Education student).

DISCUSSION

Despite the existence of a plethora of guidelines regarding the use of e-portfolios, it is clear that particularly in the South African context, a deeper level of understanding and consequent response are needed for e-portfolio implementation and use to be truly of value in the learning experience. At a meta-level, ownership of the e-portfolio remains challenging due to lifelong learning needs as opposed to security in terms of verification, assessment and so forth (Brown, 2015). It requires institutions and role players to assess

continuously and debate the level of institutional control over student e-portfolios while still providing a space for students to remain the owners of their work (Roder & Brown, 2009). In essence the flexibility of an e-portfolio and its associated benefits whereby the student becomes the owner, creator and administrator, provides agency to the student and contributes to the notion of student-centred and self- directed learning (Edwards, 2016; Van Staden, 2016). This could only be of optimal value if students not only understand the pedagogical value of such an intervention, but also have the necessary digital skills to make use fully of all the potential benefits of an online platform and its associated technical functionalities. It is often assumed that students attending higher education have sophisticated technological skills and have access to a variety of tools (Kennedy, Judd, Churchward, Gray & Krause, 2008) but it is evident that differences are observed in the digital skills levels of many students (Ng, 2012). Lecturers and other role players should therefore understand the required digital skills necessary for the development of an e-portfolio. Appropriate training and support opportunities should be provided for all students so that they may have rightful access and the skills needed for the development and design of e-portfolios. However, it is suggested that lecturers themselves also engage with the expected online activities of students in order to grasp fully the level of skills and understanding students require during e-portfolio development (Tshabalala, Ndeya-Ndereya & van der Merwe, 2014).

Despite the importance of reflections, it often remains challenging to staff members who need to identify appropriate methodologies to recognise and develop reflective skills in students (Challis, 2005). Both lecturer and student should adopt a cognitive paradigm by which it is made clear what the particular expected outcomes associated with student reflections are (Jimoyiannis, 2012). The characteristics of a mature e-portfolio requires a learning process demonstrated in terms of the appropriate responses of students to feedback on their reflective posts (Challis, 2005) and therefore supporting students in not only writing reflective posts, but also appropriately responding to peers and their own feedback (Van Staden, 2016). The social interaction does, however, not only reside between students and peers, but it was evident that students do value the feedback from lecturers and facilitators (Van Wyk, 2017). It is often a challenge to access all student portfolios if the classes are very large, but during the planning phase clear roles should be established by which students are allocated to lecturers, facilitators or assessors that could also provide them with appropriate feedback during e-portfolio development. We argue that the online relationship that is established through commenting on reflections and consequent student responses to such comments remains of value. However, in order to sustain such a relationship, a particular time commitment is required from such role players (Islam, Beer & Slack, 2015) whereby online rules of engagement are clearly communicated between the different users and facilitators.

The pedagogical model of authentic learning suggests nine elements that are linked to authentic learning experiences (Herrington, Parker & Jelinek, 2014):

      1. a curriculum resembling a real-world context

      2. tasks being complex and having to be completed over a longer period of time

3. learning from other experts

4. the ability to approach challenges from various perspectives and roles

5. the opportunity for collaborative construction of knowledge

6. an opportunity for reflection to enable abstractions

7. the ability and opportunity to articulate tacit knowledge to be explicit

8. scaffolding and coaching opportunities

9. authentic assessments for authentic tasks (Herrington et al., 2010).

Such requirements for authentic learning once again place the responsibility on lecturers to consider carefully the desired outcomes of an e-portfolio initiative and the particular context wherein the initiative will reside. Attention regarding such a design could contribute to the value students place on participating and developing an e-portfolio (Herrington et al., 2014). Herrington et al. (2010), however caution lecturers not to misconstrue authentic learning as an approach whereby students are left unaided in a setting that could not be related to in-class activities.

RECOMMENDATIONS

The implementation of e-portfolios as a learning and/or assessment approach within the South African context poses various opportunities and challenges. In order for such approaches to be sustainable and appropriate over time, we suggest a number of key considerations in guiding the e-portfolio implementation process. Firstly, the purpose of the e-portfolio should be clearly conceptualised in terms of learning

outcomes as well as the expected learning processes involved in the creation of such evidence of learning and skills (Jimoyiannis, 2012). An e-portfolio should be used primarily to assist in addressing a particular learning challenge and should drive the motivation for the utilisation of e-portfolios in a given context. The choice of platform, however, is crucial in terms of user-friendliness, learner-centredness and ease of access during the initial project as well as further studies in terms of lifelong learning (Challis, 2005). A thorough investigation should precede the implementation phase and role players should highlight clearly what is expected in terms of a chosen electronic platform. Technical and pedagogical support for both staff and learners should be continuous and accessible where and when needed (Goldsmith, 2007). Initial training on the use of the platform as well as the pedagogical practices associated with an e-portfolio is important, but both lecturers and learners should have regular access to support during any phase of the initiative. It is evident from our experience that learners still struggle with the notion of reflection and often confuse it with diary entries and 'blogging' (Majid & Adnan, 2011). It is important that the required digital literacy skills of both staff and learners involved in the initiative be assessed beforehand and appropriate differential training be available according to the needs of the participants (Ng, 2012, 2013). Developing an online community of practice does not evolve organically and therefore careful consideration should be given to supporting learners on where, when and how to respond to peers' reflective posts and the feedback they receive. Finally, it is suggested that the e-portfolio be linked explicitly to an authentic learning experience in order to enhance student motivation (Tosh & Werdmuller, 2004) and to encourage students to develop their e-portfolios. In many instances students will question the rationale for an e-portfolio and therefore it is essential to communicate it clearly and to align it as closely as possible with a real-life experience (Herrington et al., 2010).

CONCLUSION

We conclude that the consideration of e-portfolios in any discipline can be sensibly used to demonstrate learning and to showcase achievements and skills developed. Not only is such a learning approach confined to the in-classroom experience but it also provides an opportunity to bridge the gap between informal and formal learning. However, it is imperative to note that the choice to integrate e-portfolios into learning and teaching activities requires a response to a particular educational challenge and should not be driven by the choice of particular technologies and an electronic platform. Facilitators considering such an approach will be required to be involved in the process by fully understanding and experiencing the different aspects of e-portfolio development as well as being committed to participate actively in the online learning experience of students.

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